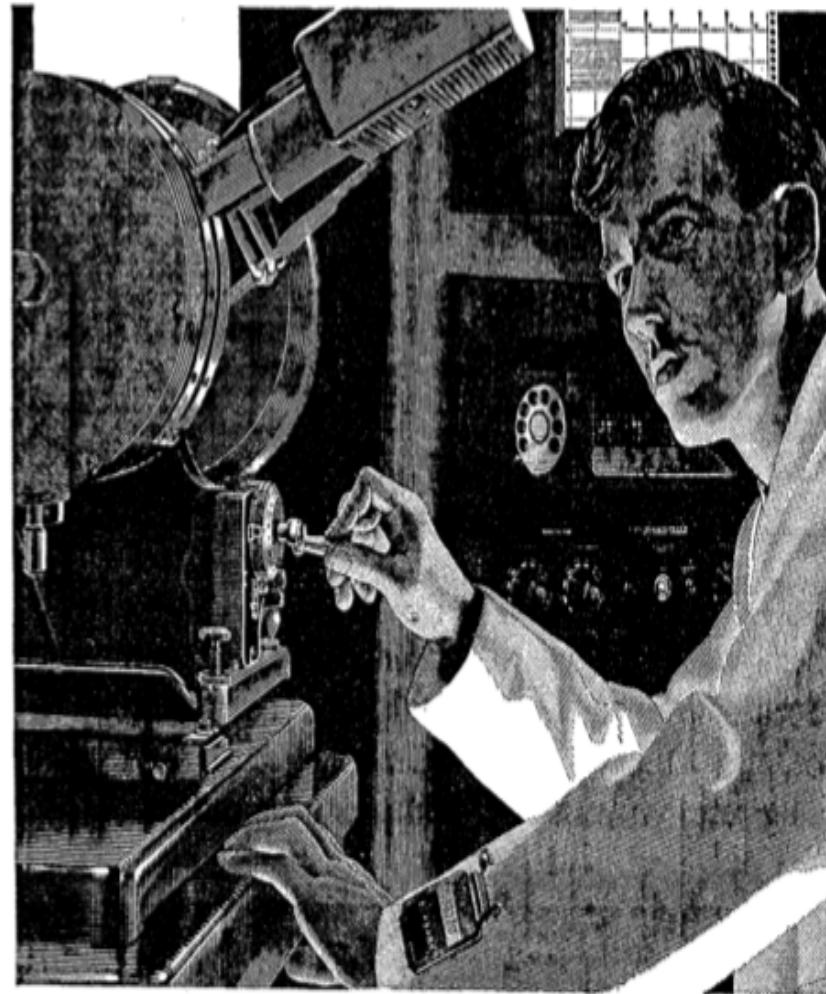


'No known antidote': Paraquat and its domestic users in Britain

Cat Rushmore
Oxford Brookes University



RESEARCH
THE SPRINGBOARD OF PROGRESS

**ICI, display ad, The Times,
p.9, 01 July 1963**

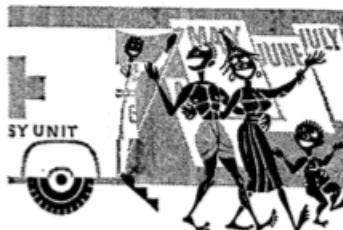
RESEARCH THE SPRINGBOARD OF PROGRESS



NEW PASTURES FOR OLD

Thousands of acres of British farmland grow nothing but coarse grasses and weeds that provide little or no nourishment for cattle or sheep. These useless, often unploughable, pastures can now be made productive, through paraquat, the latest discovery of I.C.I.'s agricultural scientists. Paraquat, which is being marketed under the name of 'Gramoxone' W, makes it possible to reseed these pastures without ploughing them up. It destroys the old, useless sward and, because it ceases to be active the moment it touches the ground, the soil can be reseeded almost at once with rich, lush grasses. The result is new pastures that will play their full part in producing meat and milk for the nation. This latest I.C.I. discovery will have as big an effect on grassland farming as did the earlier I.C.I. discovery of 'Agroxone', the first of all selective weedkillers.

In the course of every year the work of I.C.I.'s 10,000 research and development workers has an impact, great or small, on almost every kind of human activity. The more spectacular achievements catch the popular imagination and become a part of chemical history. But no less important in aggregate are the numberless small contributions of I.C.I. research and development, which are daily paving the way to greater efficiency in other fields. Here are three examples:



AID TO TROPICAL MEDICINE

There are ten million sufferers from leprosy in the world today, despite the fact that the search for a cure has been pursued since Biblical times. An I.C.I. discovery, 'Etsul', offers new hope in the attack on this disease. The great advantage of this drug, besides its efficacy, is simplicity of treatment, which greatly appeals to the patient: it is simply applied to the skin, and from there it is absorbed into the system. After two or three months the patient, though not yet fully cured, is non-infectious, and can mingle once more with his family.



WALLPAPERS THAT REALLY WASH

Out of I.C.I. laboratories has recently come a new P.V.C.-coated wallpaper, 'Vymura', that sets a new standard of durability and cleanability in wall coverings. The material has proved that it can withstand scrubbing twice weekly for 12 months, without detriment to its beautiful designs. Ink stains, beetroot and tomato juice, and cooking fats are completely removed from 'Vymura' by soap and water.

I.C.I.'s far-ranging research
is contributing
to progress in many fields



IMPERIAL CHEMICAL INDUSTRIES LIMITED, LONDON, S.W.1

ICL, display ad, The Times,
p.9, 01 July 1963



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ICI, display ad, The Times,
p.9, 01 July 1963

"HOW I TRANSFORMED MY PASTURE WITHOUT THE PLOUGH *...and got a higher milk yield!*



Says
Mr. D.J. Perrin
of
Kington Magna
Dorset

"It's risky to plough these pastures. The fields are wet and the clay lies near the surface, and it's a job to establish a ley on the upturned furrows. That's why I decided to try 'GRAMOXONE' W. I sprayed in mid-July.

In a fortnight, the tussock and other grasses were dead. I rotavated twice—once at $1\frac{1}{2}$ " and once across the first rotavation at $2\frac{1}{2}$ ". This gave a good seedbed for the broadcast Ryegrass/Timothy ley, and the establishment was thick and even with no patches. Eight weeks after

rotavating, the field was fit for a light grazing. For an 8-day period before the end of the season, these 4 acres provided grazing for 28 cows in milk and 12 dry cows. Net milk yield produced from grass—136 gallons per acre.

'GRAMOXONE' W is more than a new chemical—it's really a new tool. I shall use it on another field next year."

'GRAMOXONE' W

I.C.I. PLANT PROTECTION

I.C.I. RESEARCH PAYS OFF ON YOUR LAND

ICI , display ad,
The Times,
p. ii, 07 Dec. 1964

1966
display ad,
Daily Mail
April

ICI

New ways to better & easier gardening.

Better and easier than hand weeding

Hand weeding throughout the garden is laborious and time consuming, but now you just water the weeds away with 'Weedol' and the soil becomes touchingly clean and easier than hand weeding—'Weedol' is not only cleaner and easier than hand weeding—it keeps ground weed-free for a long period. This is because weed seeds are not brought up to the surface of the soil to germinate, as would be the case with hand weeding.

How to use 'Weedol'

Dissolve 'Weedol' in an ordinary watering can fitted with a fine rose—or, for even more economical and accurate application, use a Haw's or Geec's spray bar, 2/l each. Take care to water the weeds—not the plants.

End the work of Weeding with 'Weedol'

The only garden weedkiller you can use safely among growing plants—because it is made harmless by the soil itself

Where 'Weedol' can be used

- In rosebeds and flower beds**
'Weedol' kills unwanted rose suckers as well as weeds.
- On garden paths and drives**
'Weedol' kills weeds without damage to nearby plants.
- Between vegetables**
'Weedol' saves constant hoeing.
- Around fruit trees**
'Weedol' keeps ground weed-free without disturbing soil.
- Between shrubs**
'Weedol' saves an endless routine job.
- Among soft fruit**
'Weedol' is safer than hoeing—does not disturb roots.
- Along hedges and fences**
'Weedol' makes weeding so much easier.

Where to use 'Weedol'

'Weedol' can be used everywhere in the garden except on the lawn. Use it in flower and rose beds, around fruit bushes, between vegetables, shrubs, borders, under hedges, on paths. Use 'Weedol', too, on ground before it is dug and prepared for sowing or planting.

'Weedol' harms weeds—but not the soil

Unlike ordinary weedkillers, 'Weedol' is inactivated when it touches the soil—it is actually made harmless by the soil itself and cannot persist to spoil growing plants.

Harmless to humans, pets and birds when used as directed

'Weedol' is approved under the Agricultural Pesticides Approval Scheme, Licence No. 1187

This weekend
Buy 'Weedol' now and use it this weekend.
only 5/6 (2-drum) pack and 19/6 (8-drum) pack
(Maximum retail prices)

ICI Garden Products marketed by Plant Protection Limited, Fernhurst, nr. Haslemere, Surrey, a subsidiary of Imperial Chemical Industries Limited.

1971
Display ad,
The Daily Mail
April

There are two ways to weed your garden.

The painfully hard way.

Otherwise known as the do-it-yourself method. Gives you hours of back-breaking work. A true test of will-power, stamina and patience, over and over again.



The ridiculously easy way.

Otherwise known as the 'Weedol' way. All you need is New 'Weedol', a watering can with Sprinkle Bar and a few minutes of your time. That's the answer to getting rid of weeds in the flower beds and in the vegetable patches.

To kill the weeds, just wet them thoroughly; but make sure you don't sprinkle your plants.

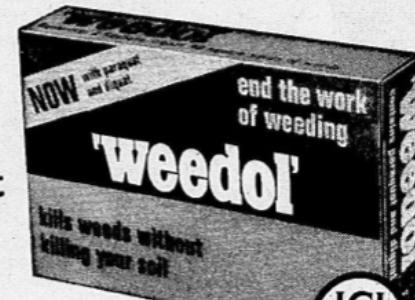
You see, New 'Weedol' now with paraquat and diquat, kills all greenery. Paraquat is particularly active against grasses, diquat against broad-leaved weeds; and both are made harmless when they touch the soil.

So, with New 'Weedol', all you have to do is seek out the weeds in the first place.

Get some this week. The 40 sq. yd. pack costs 30p.



New 'Weedol'
with paraquat plus diquat
is the only weedkiller
you can use near plants
really safely.



If you want to know more about
weeding with 'Weedol' write for free leaflet to:
Plant Protection Limited, Fernhurst, Haslemere,
Surrey. Or ask at your Gardening Shop.



HO305/32

National Archives,
Kew

SC305/32

SCIENTIFIC SUBCOMMITTEE ON POISONOUS SUBSTANCES USED IN AGRICULTURE AND FOOD STORAGE	
<u>CONFIDENTIAL.</u>	
<u>PLANT PROTECTION LIMITED.</u>	
<u>PARAQUAT AND DIQUAT LIQUID FORMULATIONS</u>	
<u>SUMMARY OF EXPERIENCE OF HUMAN EXPOSURE December 1965 - May 1967.</u>	
<u>Oral Fatal : Accidental</u>	
January, 1966	Ireland: 'Gramoxone' stored in beer bottle in the kitchen. Patient was drunk when he consumed the 'Gramoxone'.
July, 1966	Dominica: Large quantity of 'Gramoxone' swallowed.
August, 1966	Scotland: 'Gramoxone' stored in a beer bottle taken by a 13 year old boy.
January, 1967	Ireland: Child (6½ years) drank 'Gramoxone' which was stored in a "Domestos" bottle.
April, 1967	Ireland: Man drank 'Gramoxone' from a lemonade bottle stored with other drinks.
May, 1967	Germany: Agricultural worker drank a mouthful of 'Gramoxone' from a beer bottle stored in his knapsack beside one containing coffee.
May, 1967	Ireland: A mentally retarded man drank 'Gramoxone' in mistake for wine.
<u>Oral Fatal : Suicide</u>	
August, 1966	Borneo: Three suicides, 2 men and 1 woman. The woman consumed 28 fl oz of 'Gramoxone', the amounts are not known in the other cases.
January, 1967	Scotland: Whisky followed by two large tablespoons of 'Preeglove' Extra ingested. Death followed 24 hours later.

Daily Mail
30 Aug.
1972
p.6

PARAQUAT

A DAILY MAIL SPECIAL INVESTIGATION

Should this killer be allowed?

SIXTY-NINE people have died in the ten years since ICI marketed a revolutionary—and deadly—new weed killer.

A Daily Mail investigation reveals that regulations to protect the public from a poison without an antidote are slip-shod, largely ineffective, and in need of urgent overhaul.

The urgency is underlined by ICI's disclosure that this year will see the highest-ever production of their best-selling weed killer, Gramoxone—more than 3,500,000 gallons, distributed in 130 countries.

The company itself welcomed Daily

To market a weed-killing poison as lethal as paraquat with no known antidote is exposing people to a wholly unjustifiable risk. •

—THE SOLICITOR TO THE PHARMACEUTICAL SOCIETY

Alcester, Warwickshire, two agricultural suppliers sold Gramoxone without question—or hesitation.

At Rotherham, Yorkshire, an agricultural merchant sold a gallon with no questions and no warning.

People who have seen what paraquat can do to the human system are appalled at the laxity of control.

The father of four-year-old David Hetherington, for instance. Mr Joseph Hetherington, of Cockermouth, Cumberland, says: 'My boy drank some stuff that looked like pop and it was just like shooting him. He was doomed almost as soon as it touched his lips.'